

THAT WHICH IS CLAIMED:

1. A method of managing a smart card product, comprising the steps of:

providing a plurality of generic definitions, at least a portion of which have a predefined relationship to others of the generic definitions so as to provide a hierarchy of generic definitions;

selecting generic definitions from the plurality of generic definitions to associate the selected generic definitions with an instance of a card product definition, the instance of the card product definition defining characteristics of the smart card product; and

populating the selected generic definitions with data associated with the smart card product so as to provide a hierarchy of instances of the generic definitions which define the characteristics of the smart card product.

2. A method according to Claim 1, further comprising the step of managing at least one of registration of card product holders, smart card product enablement, smart card product personalization, smart card product application data, smart card product hot lists and smart card product post-issuance application updates utilizing the hierarchy of instances of the generic definitions so as to provide the smart card product having the defined characteristics.

3. A method according to Claim 2, further comprising the step of selectively linking ones of the selected generic definitions to further define the hierarchy of instances of the generic definitions associated with the smart card product so as to further define the characteristics of the smart card product.

4. A method according to Claim 2, wherein the plurality of generic definitions include process definitions which define smart card management tasks which are configured to manage the attributes of the smart card product.

5. A method according to Claim 2, wherein the plurality of generic definitions include at least one of a chip definition, a platform definition, a card product holder definition, a device definition, a certificate definition, a key definition, an application definition and a process definition.

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6. A method according to Claim 3, wherein the steps of providing a plurality of generic definition objects, selecting generic definition objects and linking the selected generic definitions comprise the steps of:

establishing the instance of the card product definition;

10 associating at least one chip definition with the instance of the card product definition;

associating at least one process definition with the instance of the card product definition;

15 associating at least one task definition with the at least one process definition;

associating at least one enterprise definition with the instance of the card product definition; and

associating at least one application definition with the instance of the card product definition.

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7. A method according to Claim 6, wherein the step of associating at least one process definition with the instance of the card product definition comprises the step of associating an enablement process definition, a registration process definition and a personalization process definition with the card product definition.

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8. A method according to Claim 7, further comprising the step of associating at least one task definition with the enablement process definition so as to carry out the enablement process.

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9. A method according to Claim 7, further comprising the step of associating at least one task definition with the registration process definition so as to carry out the registration process.

5 10. A method according to Claim 7, further comprising the step of associating at least one task definition with the personalization process definition so as to carry out the personalization process.

10 11. A method according to Claim 6, wherein the step of associating at least one process definition with the instance of the card product definition comprises the step of associating a hot list definition with the instance of the card product definition.

15 12. A method according to Claim 11, further comprising the step of associating at least one task definition with the hot list process definition so as to carry out the hot list process.

20 13. A method according to Claim 6, wherein the step of associating at least one process definition with the instance of the card product definition comprises the step of associating an application load definition with the instance of the card product definition.

25 14. A method according to Claim 13, further comprising the step of associating at least one task definition with the application load process definition so as to carry out the application process.

30 15. A method according to Claim 6, further comprising the steps of:
associating an enterprise definition with the at least one process definition
if the at least one process definition utilizes resources of an enterprise outside the
domain of a smart card management server; and

associating a connection definition with the at least one process so as to define a mechanism for establishing a connection between the smart card management server and an enterprise associated with the enterprise definition associated with the at least one process definition.

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16. A system for managing smart card products, comprising:

a database of smart card definitions, wherein the smart card definitions are associated in a hierarchical manner so as to encapsulate characteristics of smart card components, interrelationships with other components, and work processes; and

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a smart card server operably associated with the database and configured so as to manage smart card products based on instances of the smart card definitions associated with the smart card products so as to define the characteristics of the smart card products and tasks associated with managing the smart card products.

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17. A system for managing smart card products according to Claim 16, wherein the smart card definitions include enterprise and connection definitions and wherein the smart card server is further configured to utilize an instance of an enterprise definition and an instance of a connection definition to establish communications with an enterprise associated with the enterprise definition so as to allow the enterprise associated with the enterprise definition to carry out a task associated with managing the smart card products.

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18. A system according to Claim 16, further comprising an application manager server, wherein the application manager server is configured to manage applications loaded on a smart card product based on smart card definitions associated with the smart card product.

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19. A system according to Claim 16, further comprising a certificate server configured to manage certificates utilized with a smart card product based on smart card definitions associated with the smart card product.

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20. A system for managing a smart card product, comprising:
means for providing a plurality of generic definitions, at least a portion of
which have a predefined relationship to others of the generic definitions so as to
provide a hierarchy of generic definitions;
5 means for selecting generic definitions from the plurality of generic
definitions to associate the selected definitions with an instance of a card product
definition, the instance of the card product definition defining characteristics of the
smart card product; and
means for populating the selected generic definitions with data associated
10 with the smart card product so as to provide a hierarchy of instances of the generic
definitions which define the characteristics of the smart card product.

21. A system according to Claim 20, further comprising means for
managing at least one of registration of card product holders, smart card product
15 enablement, smart card product personalization, smart card product application
data, smart card product hot lists and smart card product post-issuance application
updates utilizing the hierarchy of instances of the generic definitions so as to
provide the smart card product having the defined characteristics.

22. A system according to Claim 21, further comprising means for
selectively linking ones of the selected generic definitions to further define the
hierarchy of instances of the generic definitions associated with the smart card
20 product so as to further define the characteristics of the smart card product.

23. A system according to Claim 21, wherein the plurality of generic
definitions include process definitions which define smart card management tasks
which are configured to manage the attributes of the smart card product.

24. A system according to Claim 19, wherein the plurality of generic
30 definitions include at least one of a chip definition, a platform definition, a card

product holder definition, a device definition, a certificate definition, a key definition, an application definition and a process definition.

5 25. A system according to Claim 24, wherein the means for providing a plurality of generic definition objects, means for selecting generic definition objects and means for linking the selected generic definitions comprise:

 means for establishing the instance of a card product definition;

 means for associating at least one chip definition with the instance of the card product definition;

10 means for associating at least one process definition with the instance of the card product definition;

 means for associating at least one task definition with the at least one process definition;

15 means for associating at least one enterprise definition with the instance of the card product definition; and

 means for associating at least one application definition with the instance of the card product definition.

20 26. A system according to Claim 25, wherein the means for associating at least one process definition with the instance of the card product definition comprises means for associating an enablement process definition, a registration process definition and a personalization process definition with the card product definition.

25 27. A system according to Claim 26, further comprising means for associating at least one task definition with the enablement process definition so as to carry out the enablement process.

30 28. A system according to Claim 26, further comprising means for associating at least one task definition with the registration process definition so as to carry out the registration process.

29. A system according to Claim 26, further comprising means for associating at least one task definition with the personalization process definition so as to carry out the personalization process.

30. A system according to Claim 25, wherein the means for associating at least one process definition with the instance of the card product definition comprises means for associating a hot list definition with the instance of the card product definition.

31. A system according to Claim 30, further comprising means for associating at least one task definition with the hot list process definition so as to carry out the hot list process.

32. A system according to Claim 25, wherein the means for associating at least one process definition with the instance of the card product definition comprises means for associating an application load definition with the instance of the card product definition.

33. A system according to Claim 32, further comprising means for associating at least one task definition with the application load process definition so as to carry out the application process.

34. A system according to Claim 25, further comprising:
means for associating an enterprise definition with the at least one process definition if the at least one process definition utilizes resources of an enterprise outside the domain of a smart card management server; and
means for associating a connection definition with the at least one process so as to define a mechanism for establishing a connection between the smart card management server and an enterprise associated with the enterprise definition associated with the at least one process definition.

35. A computer program product for managing a smart card product, comprising:

a computer readable media having computer readable program code embodied therein, the computer readable program code comprising:

computer readable program code which provides a plurality of generic definitions, at least a portion of which have a predefined relationship to others of the generic definitions so as to provide a hierarchy of generic definitions;

computer readable program code which selects generic definitions from the plurality of generic definitions to associate the selected generic definitions with an instance of a card product definition, the instance of the card product definition defining characteristics of the smart card product; and

computer readable program code which populates the selected generic definitions with data associated with the smart card product so as to provide a hierarchy of instances of the generic definitions which define the characteristics of the smart card product.

36. A computer program product according to Claim 35, further comprising computer readable program code which manages at least one of registration of card product holders, smart card product enablement, smart card product personalization, smart card product application data, smart card product hot lists and smart card product post-issuance application updates utilizing the hierarchy of instances of the generic definitions so as to provide the smart card product having the defined characteristics.

37. A computer program product according to Claim 36, further comprising computer readable program code which selectively links ones of the selected generic definitions to further define the hierarchy of instances of the generic definitions associated with the smart card product so as to further define the characteristics of the smart card product.

38. A computer program product according to Claim 36, wherein the plurality of generic definitions include process definitions which define smart card management tasks which are configured to manage the attributes of the smart card product.

39. A computer program product according to Claim 36, wherein the plurality of generic definitions include at least one of a chip definition, a platform definition, a card product holder definition, a device definition, a certificate definition, a key definition, an application definition and a process definition.

40. A computer program product according to Claim 37, wherein the computer readable program code which provides a plurality of generic definition objects, computer readable program code which selects generic definition objects and computer readable program code which selectively links the selected generic definitions comprise:

computer readable program code which establishes the instance of a card product definition;

computer readable program code which associates at least one chip definition with the instance of the card product definition;

computer readable program code which associates at least one process definition with the instance of the card product definition;

computer readable program code which associates at least one task definition with the at least one process definition;

computer readable program code which associates at least one enterprise definition with the instance of the card product definition; and

computer readable program code which associates at least one application definition with the instance of the card product definition.

41. A computer program product according to Claim 40, wherein the computer readable program code which associates at least one process definition with the instance of the card product definition comprises computer readable

with the instance of the card product definition comprises computer readable program code which associates an application load definition with the instance of the card product definition.

5 48. A computer program product according to Claim 47, further comprising computer readable program code which associates at least one task definition with the application load process definition so as to carry out the application process.

10 49. A computer program product according to Claim 40, further comprising:

 computer readable program code which associates an enterprise definition with the at least one process definition if the at least one process definition utilizes resources of an enterprise outside the domain of a smart card management server; and

15 computer readable program code which associates a connection definition with the at least one process so as to define a mechanism for establishing a connection between the smart card management server and an enterprise associated with the enterprise definition associated with the at least one process definition.